



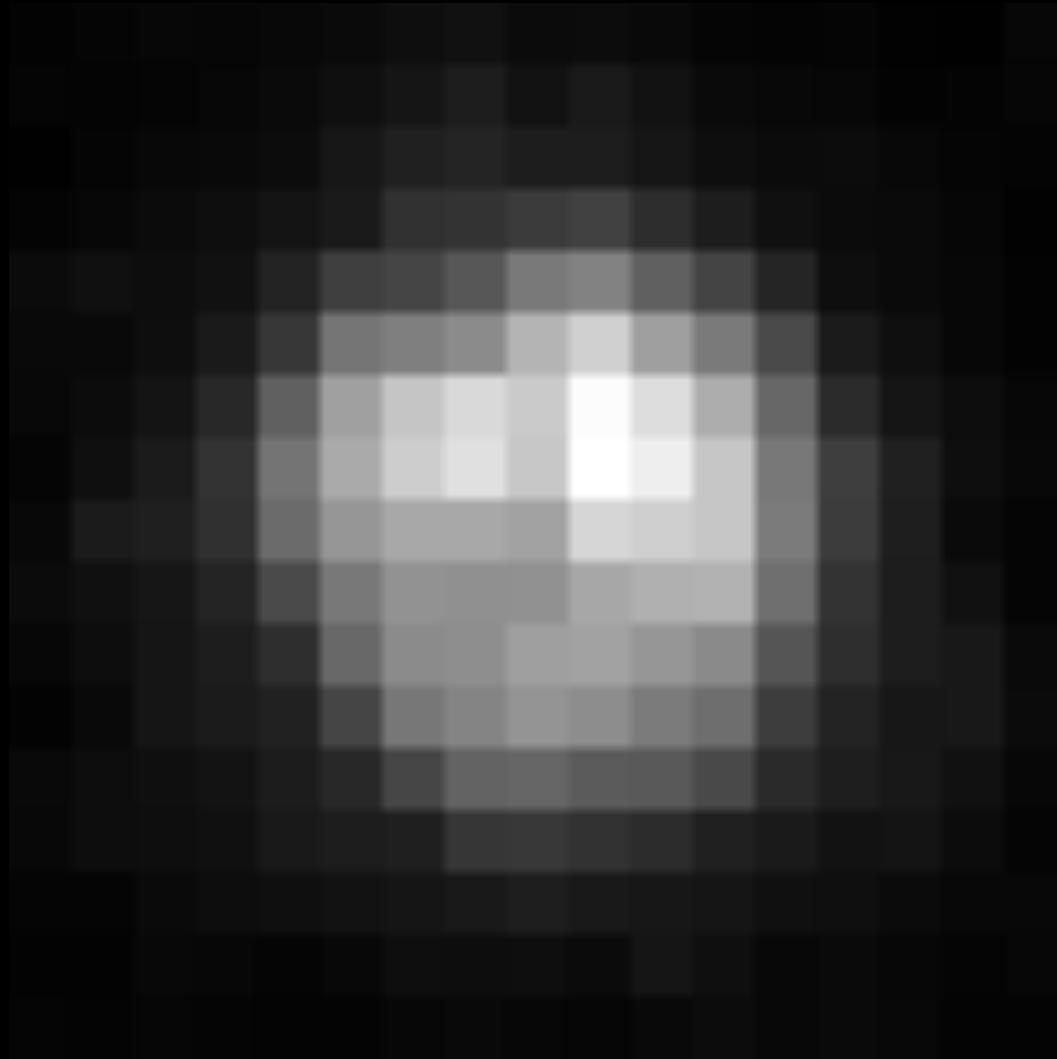
New Horizons Explores the Pluto System

John Spencer
Southwest Research Institute
Boulder, Colorado

“Impact of Discovery” Workshop
April 9th 2016



Best Picture of Pluto Before 2015





Pluto Weather Forecast



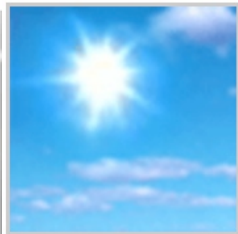
PLUTO WEATHER SERVICE



Current Conditions

[En Español](#)

[Share](#) | [f](#) [t](#) [e](#) [r](#) [m](#)



Light Snow

-380°F
-229° C

Methane Humidity 100%
Wind Speed 40 mph
Barometer 0.0003 inches
Visibility 50 miles
Wind Chill Don't Ask

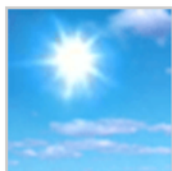
[More Local Wx](#) | [3 Day History](#) | [Mobile Weather](#)

For More Weather Information:

[NASA's New Horizons Mission](#)

7 Day Forecast

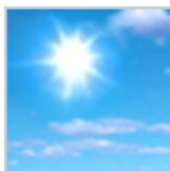
LATE
AFTERNOON



Sunny

High -380° F

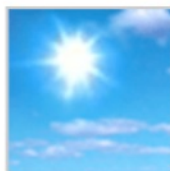
TONIGHT



Sunny

High -380° F

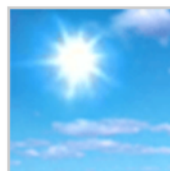
TUESDAY



Sunny

High -380° F

TUESDAY
NIGHT



Sunny

High -380° F

WEDNESDAY



Sunny

High -380° F

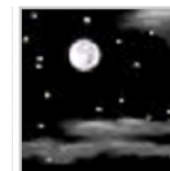
WEDNESDAY
NIGHT



Mostly
Clear

Low -382° F

THURSDAY



Mostly
Clear

Low -382° F

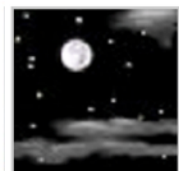
THURSDAY
NIGHT



Mostly
Clear

Low -382° F

FRIDAY



Mostly
Clear

Low -382° F





Jupiter's Moon Io: Through New Horizon's Several Eyes



LORRI



MVIC

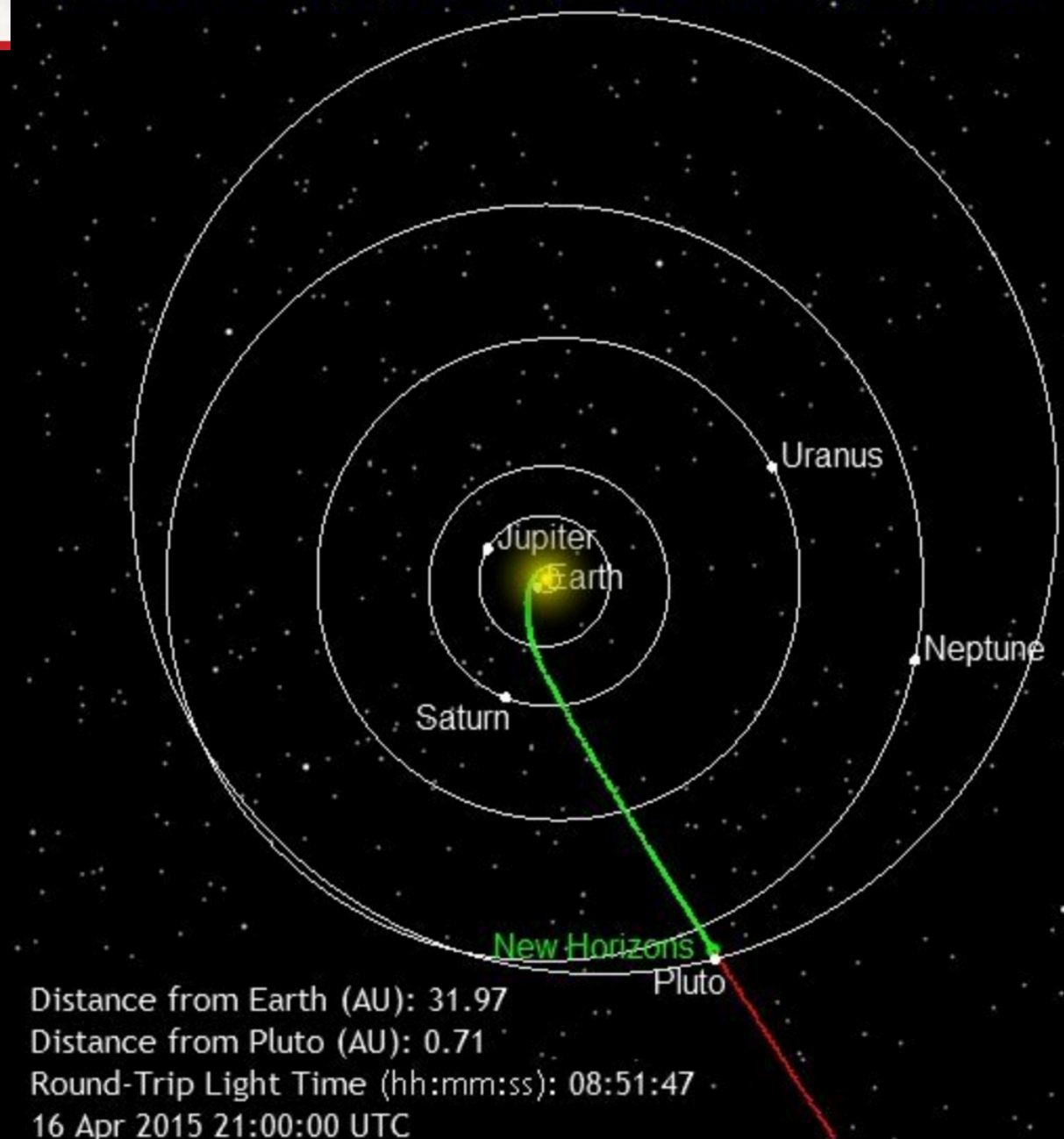


LEISA



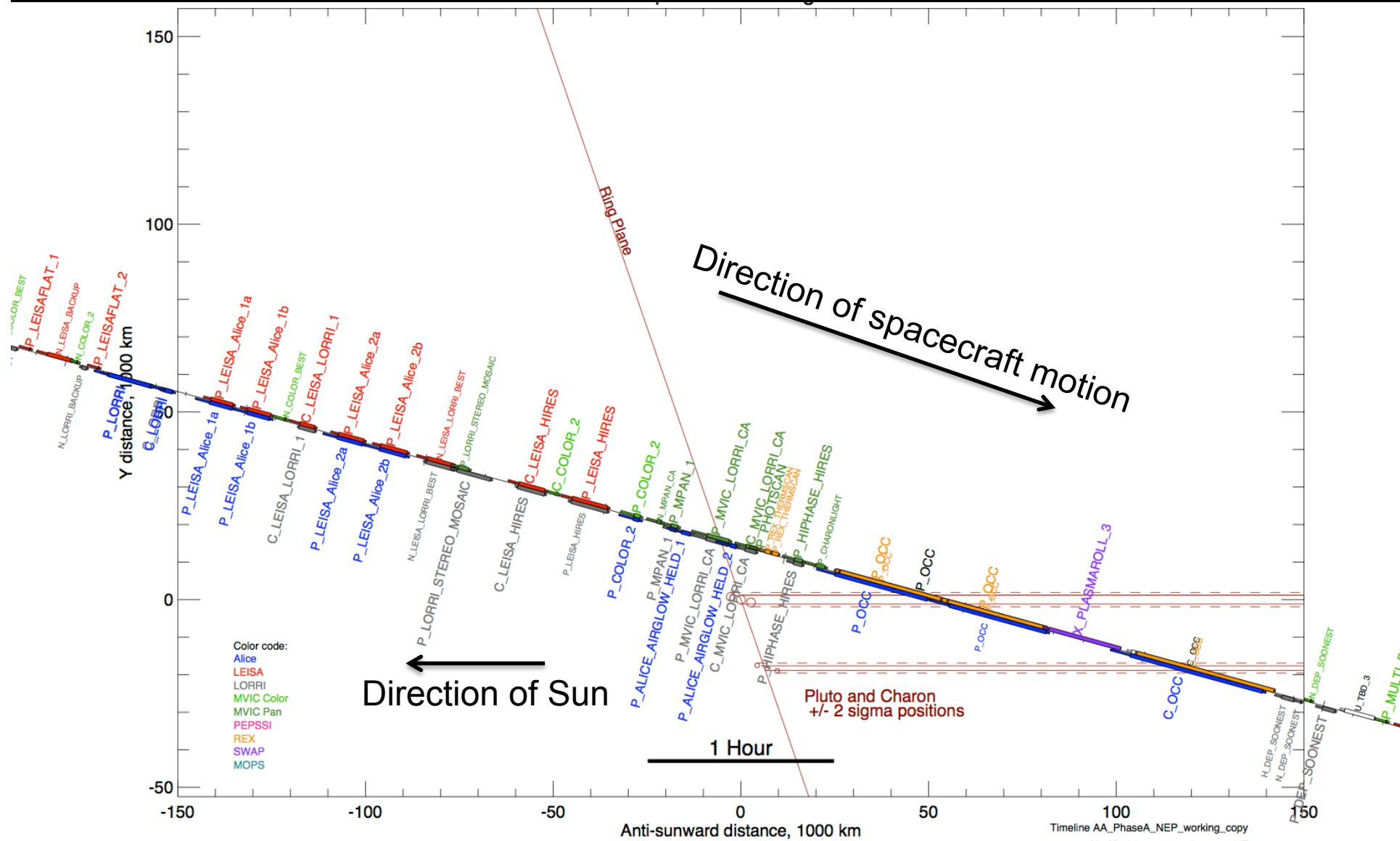
2007 – 2015 The Long Haul

New Horizons Full Trajectory - Overhead View
Distance from Sun (AU): 32.17 Heliocentric Velocity (km/s): 14.57





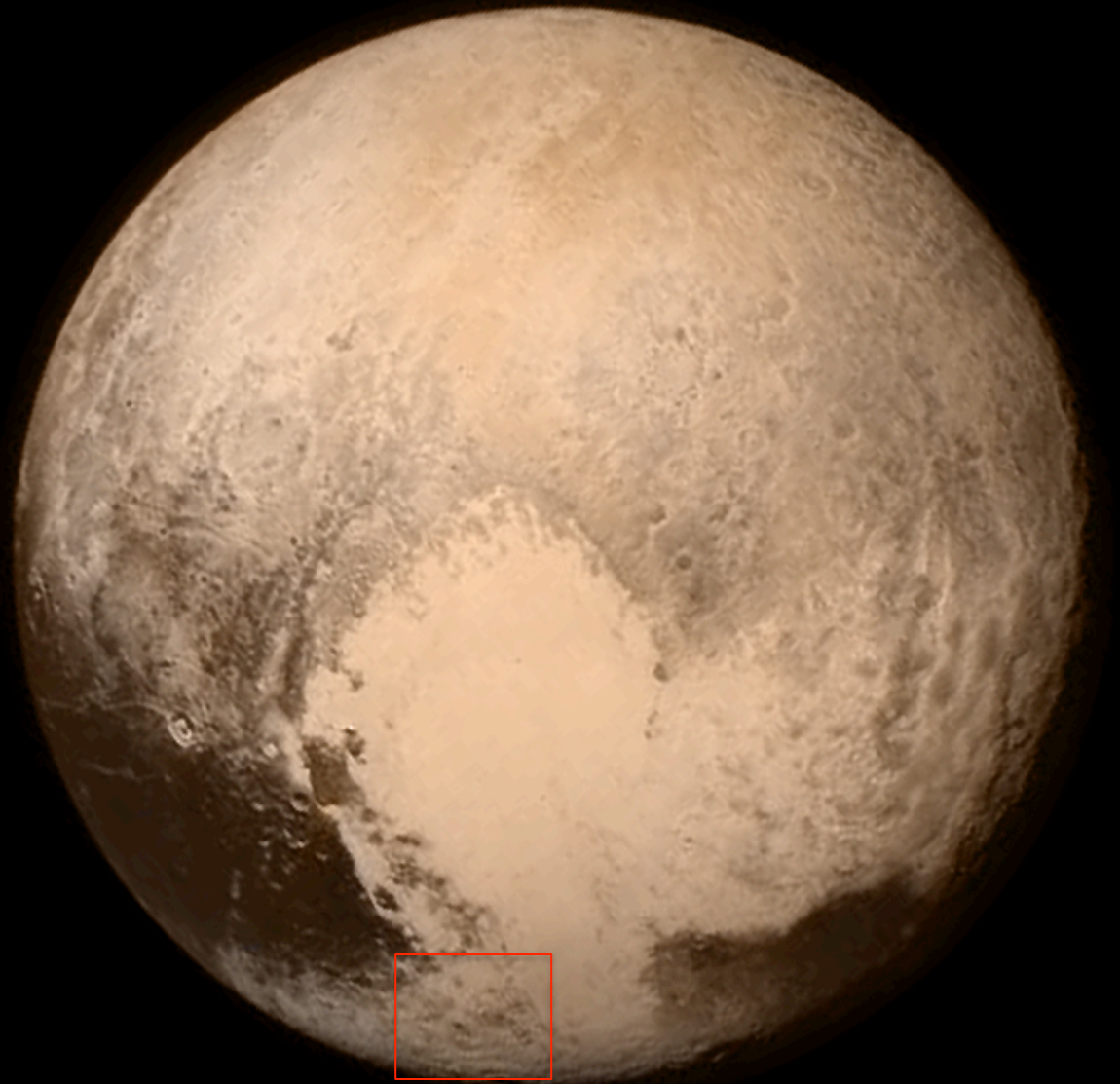
Pluto Encounter Day

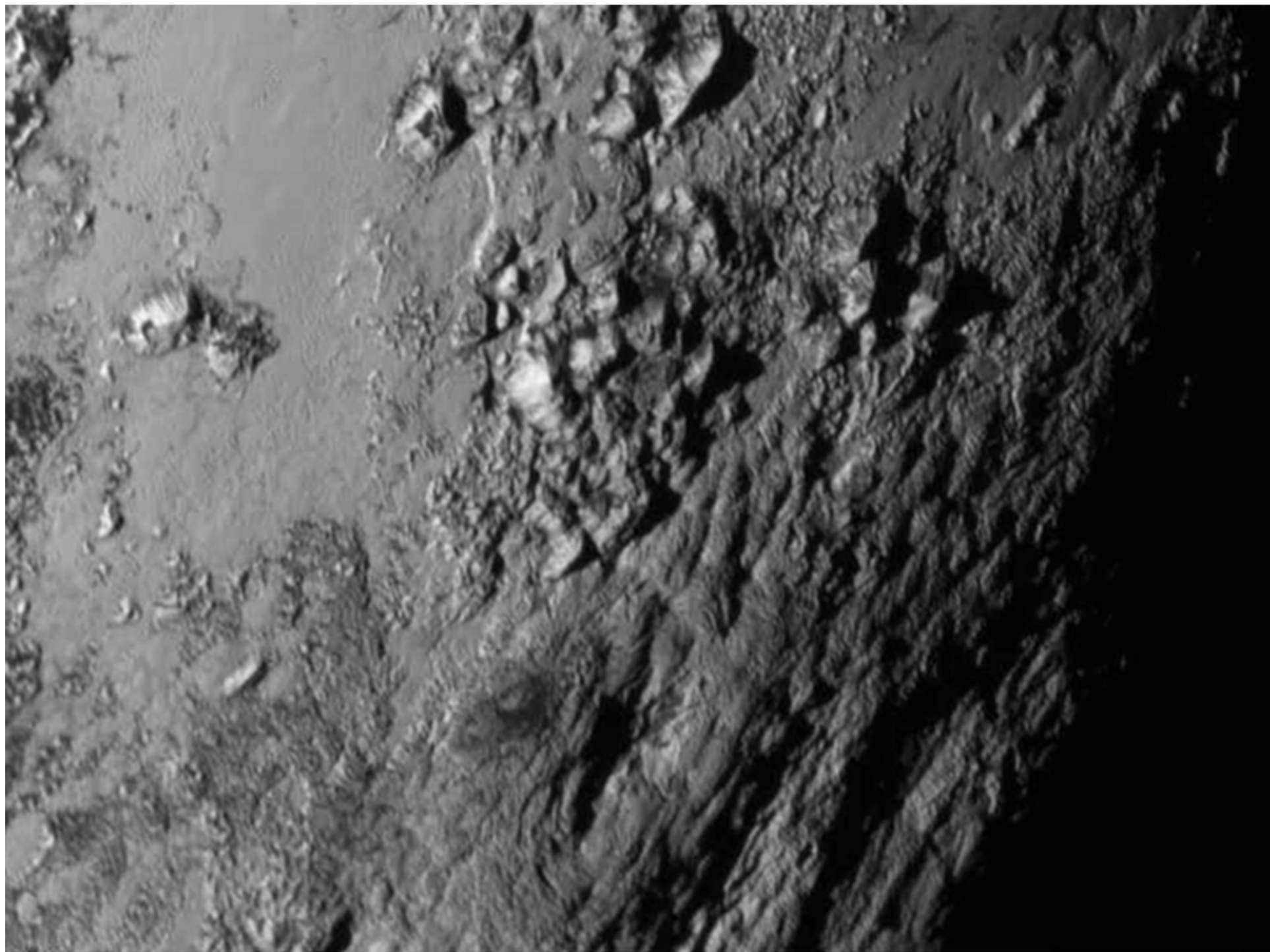


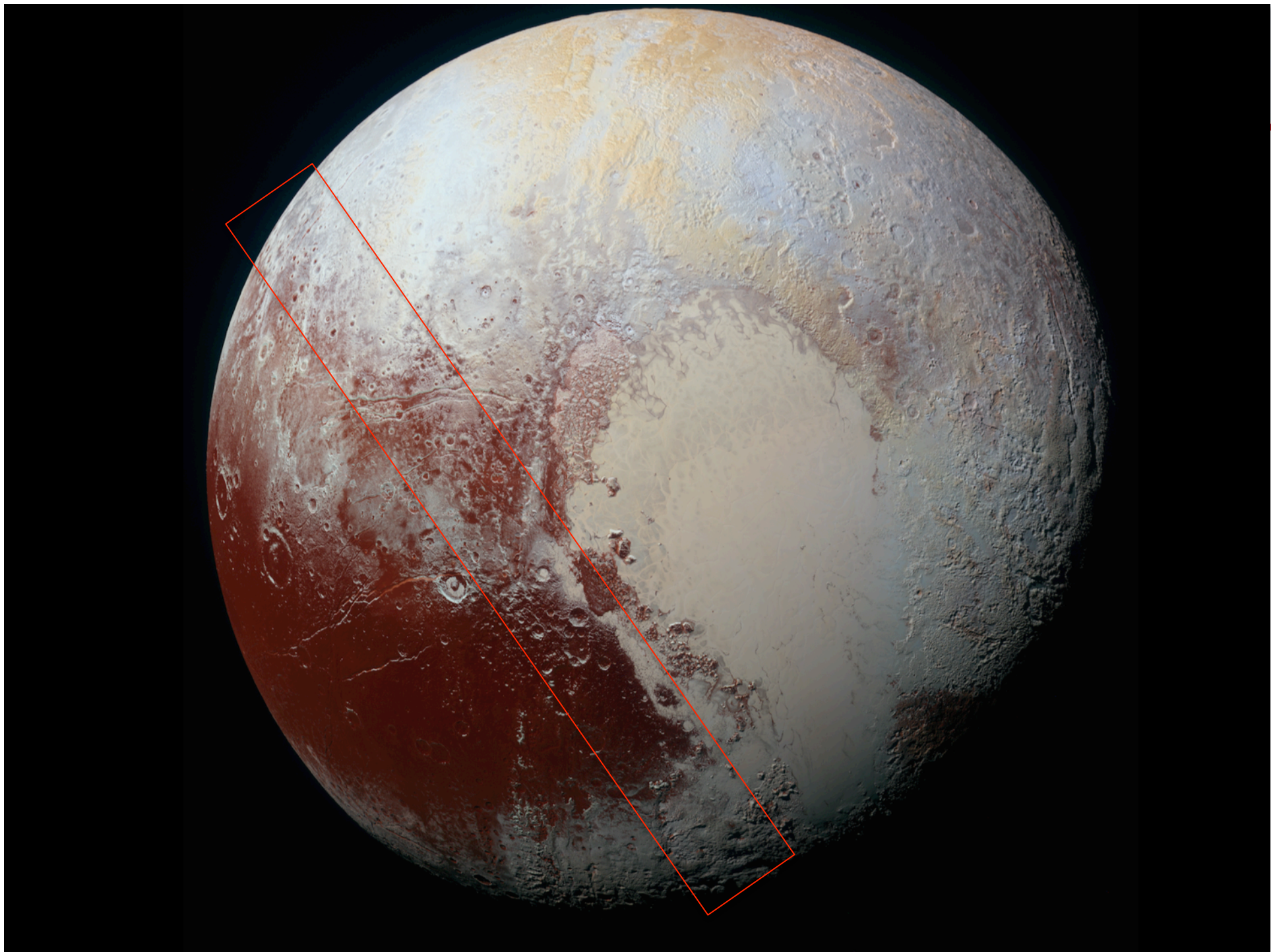


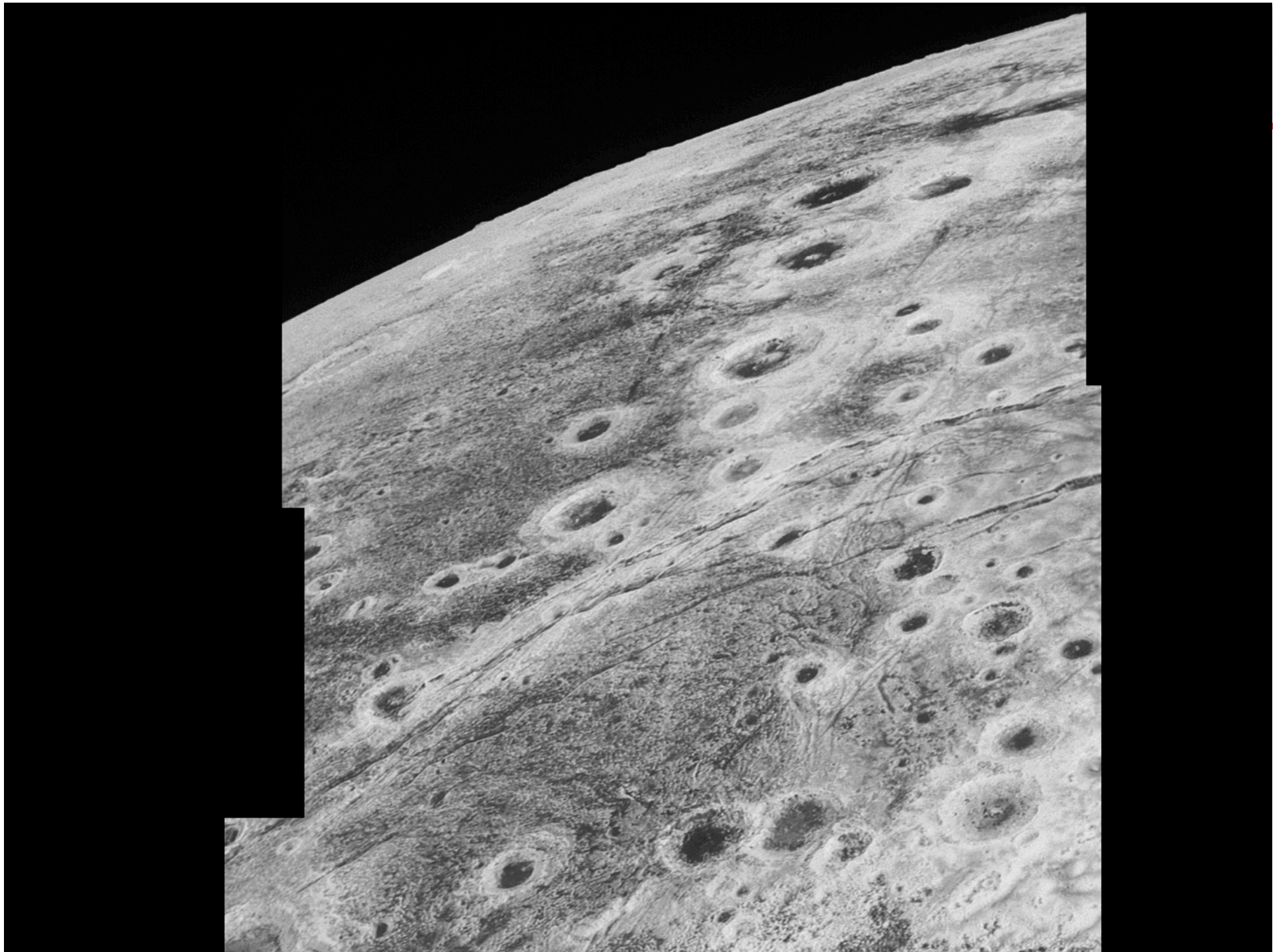
July 15th: P+1 First Closeup Images









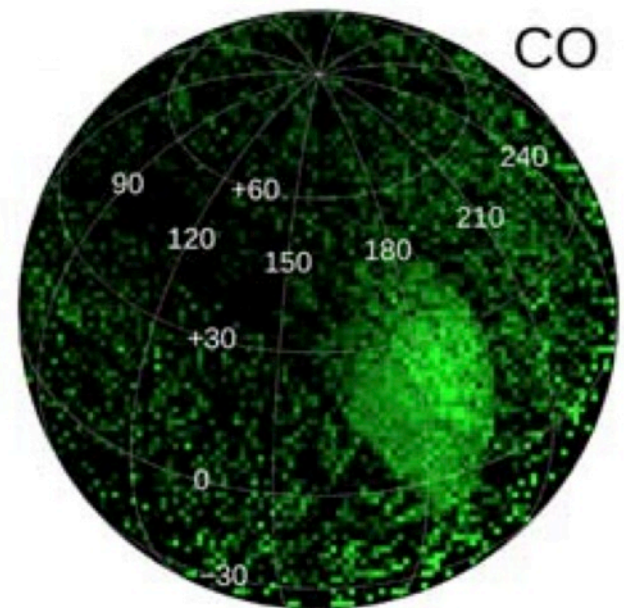
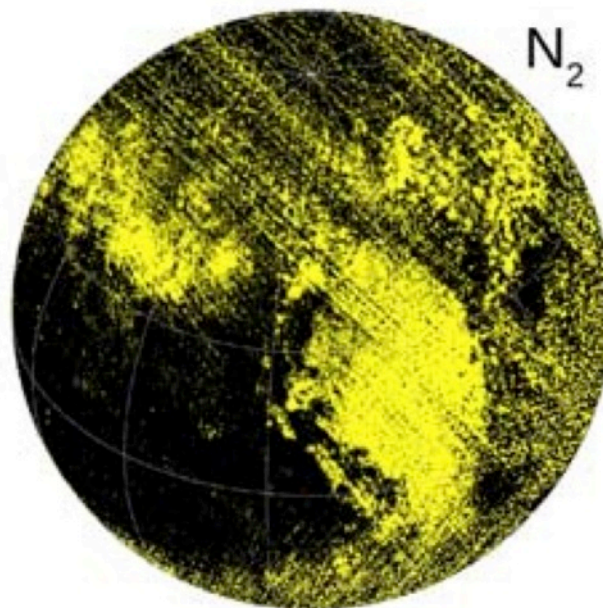
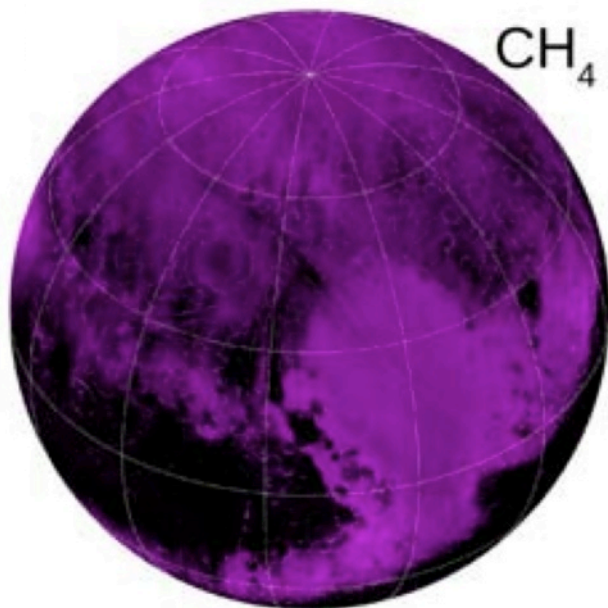


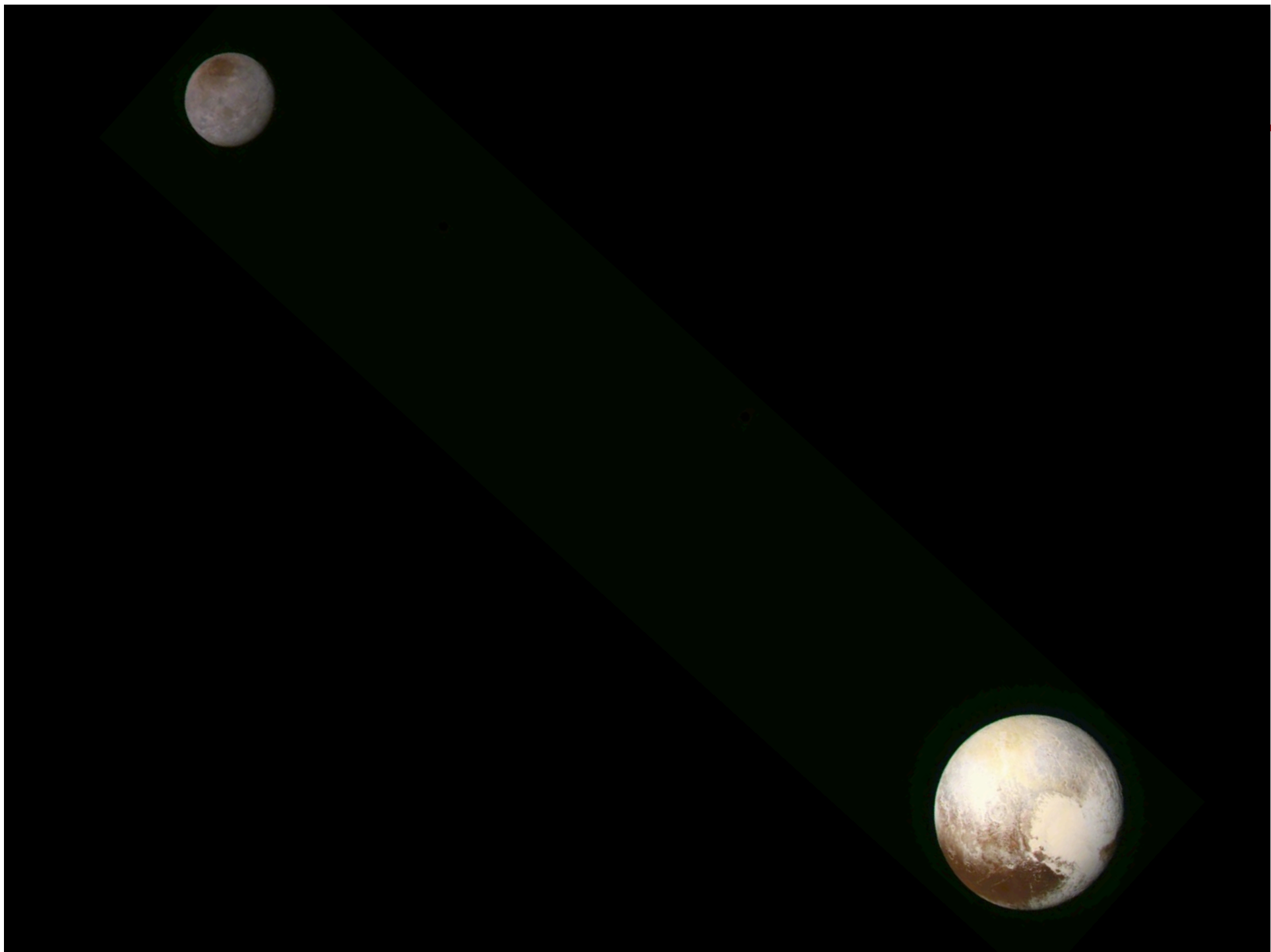


Mapping Composition



Methane, nitrogen, carbon monoxide
Probably dominantly frozen nitrogen





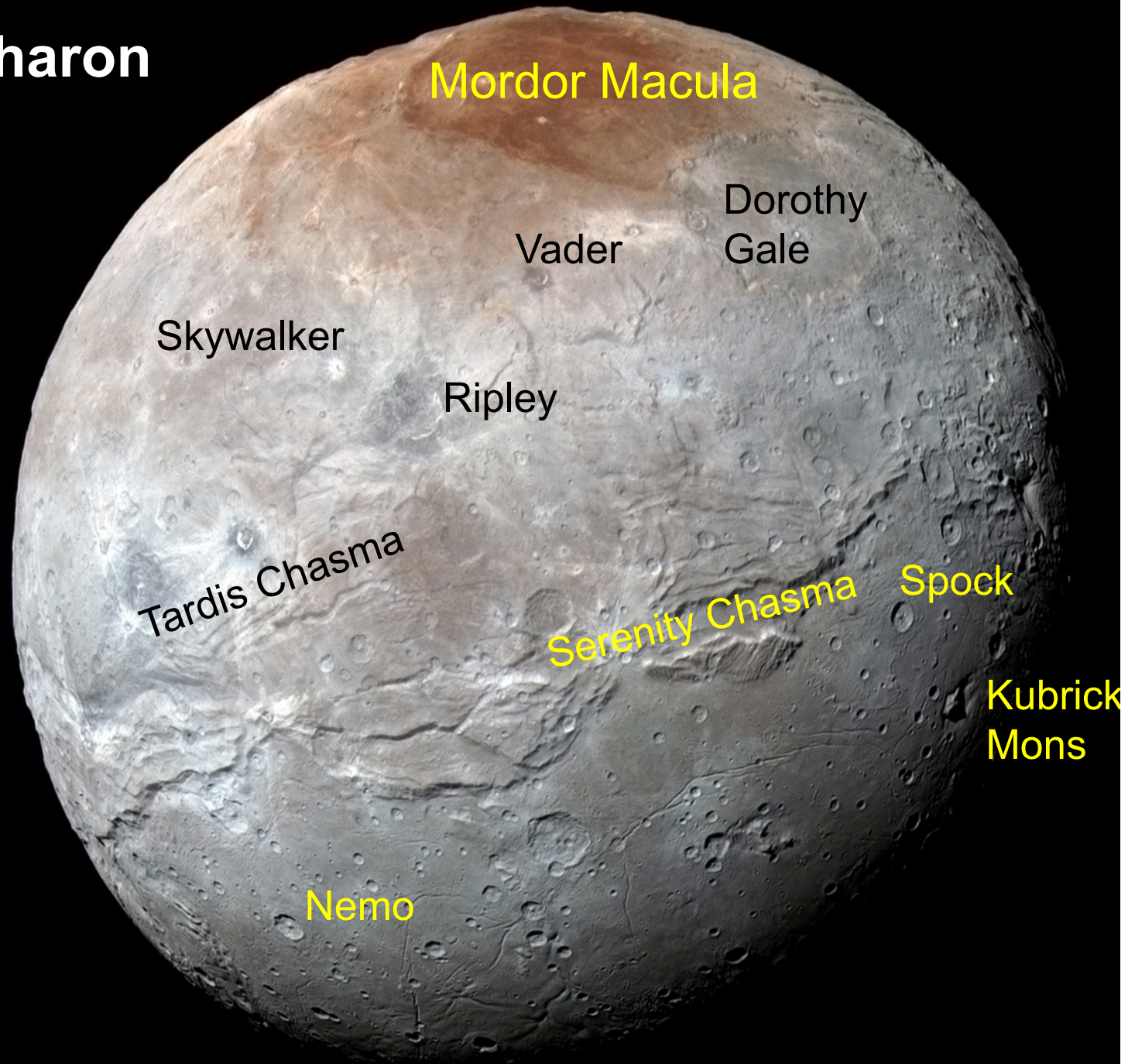


Charon





Charon



**Informal
Names**



Pluto's Small Moons



Styx



Nix



Kerberos

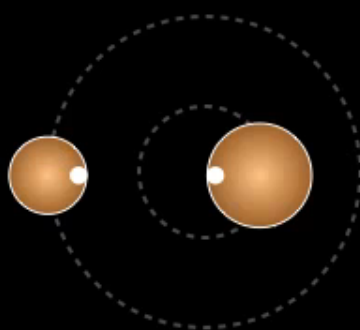


Hydra

10 miles
10 km

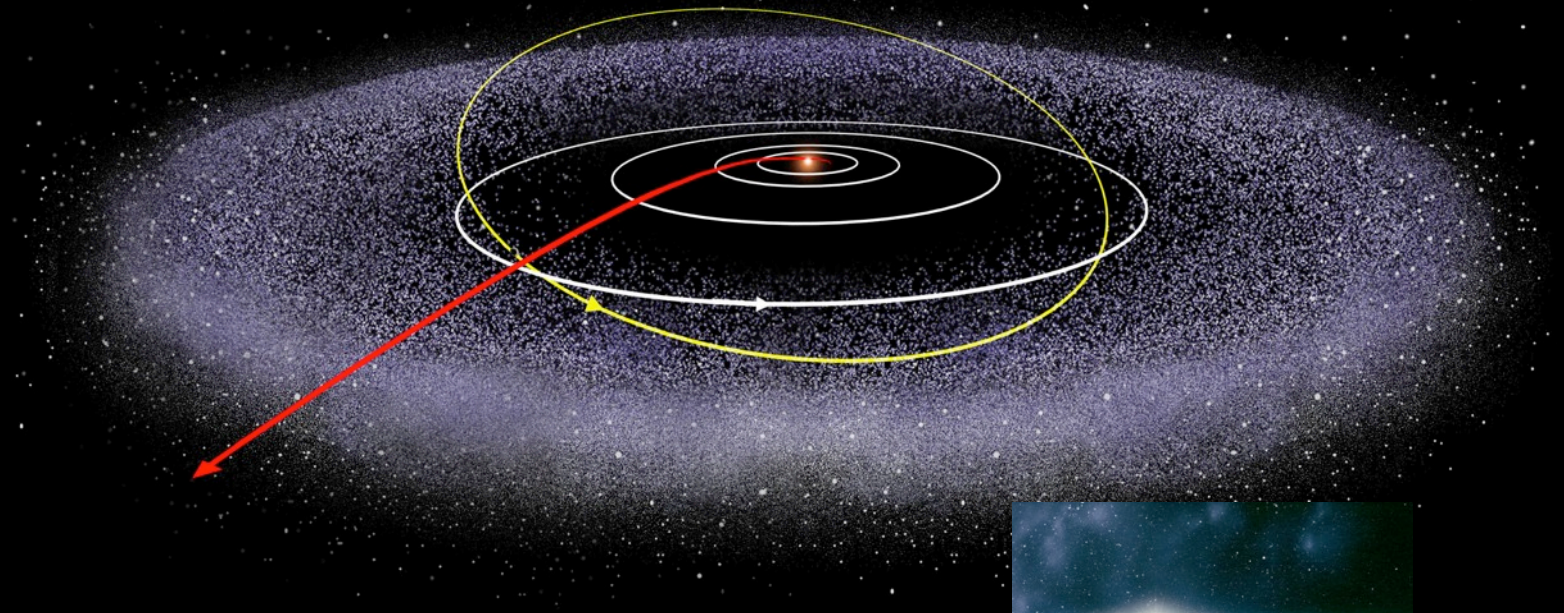
Charon







On To the Kuiper Belt

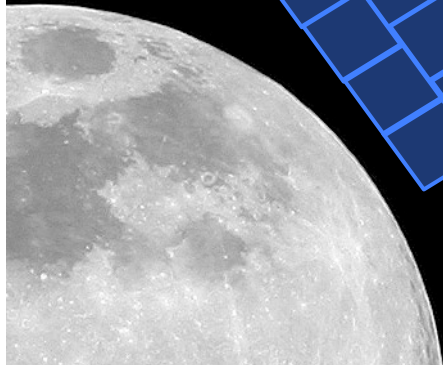
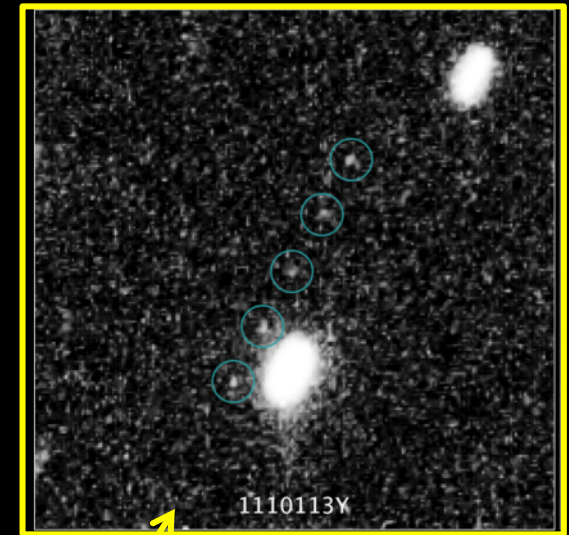
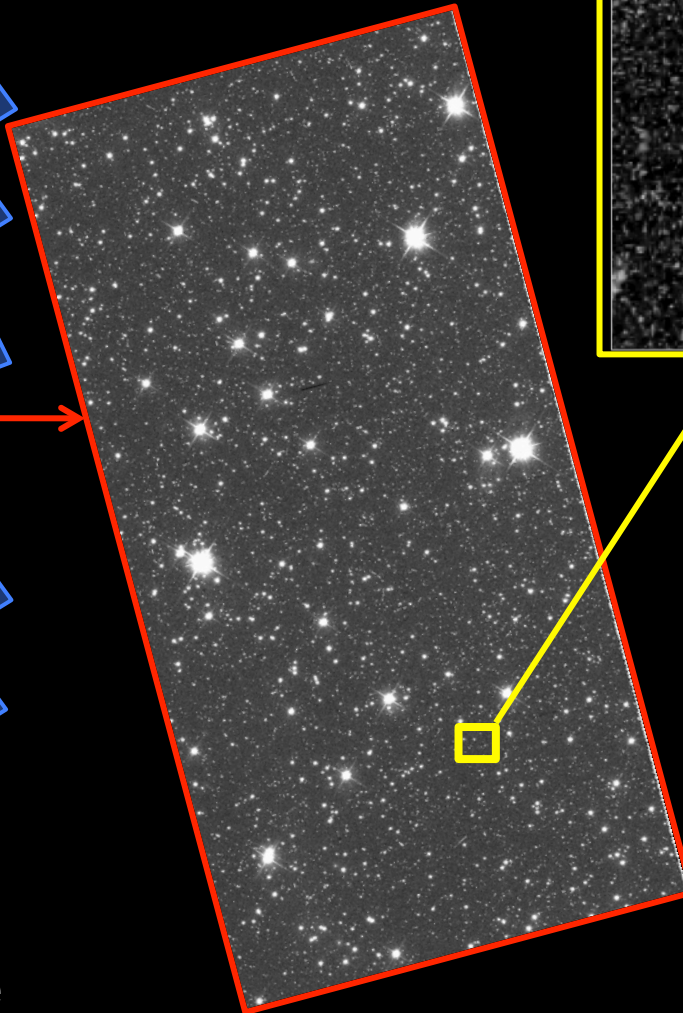
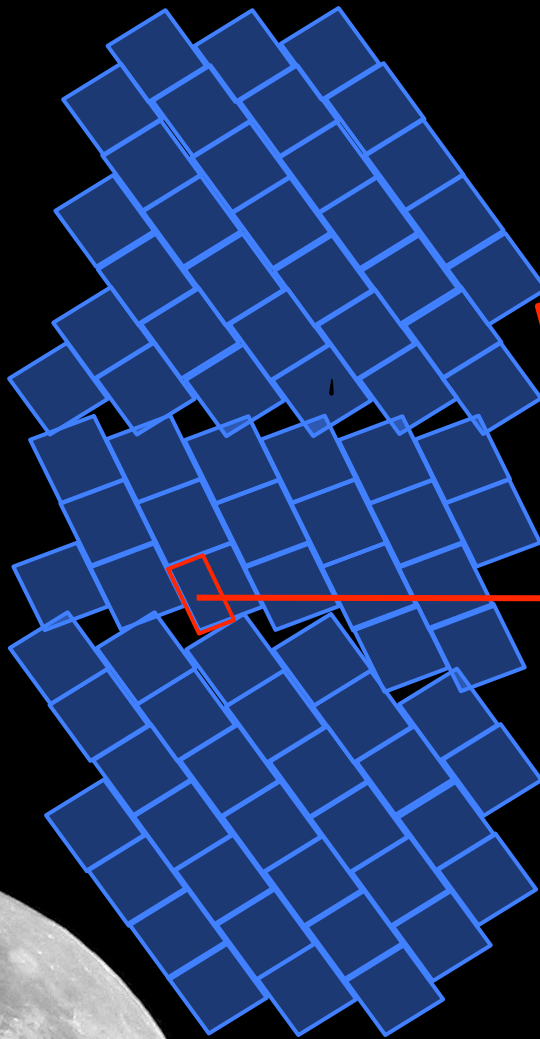


Can we fly past another small world
deeper in the Kuiper Belt?
First we had to find one...





Finding a Target in the Kuiper Belt



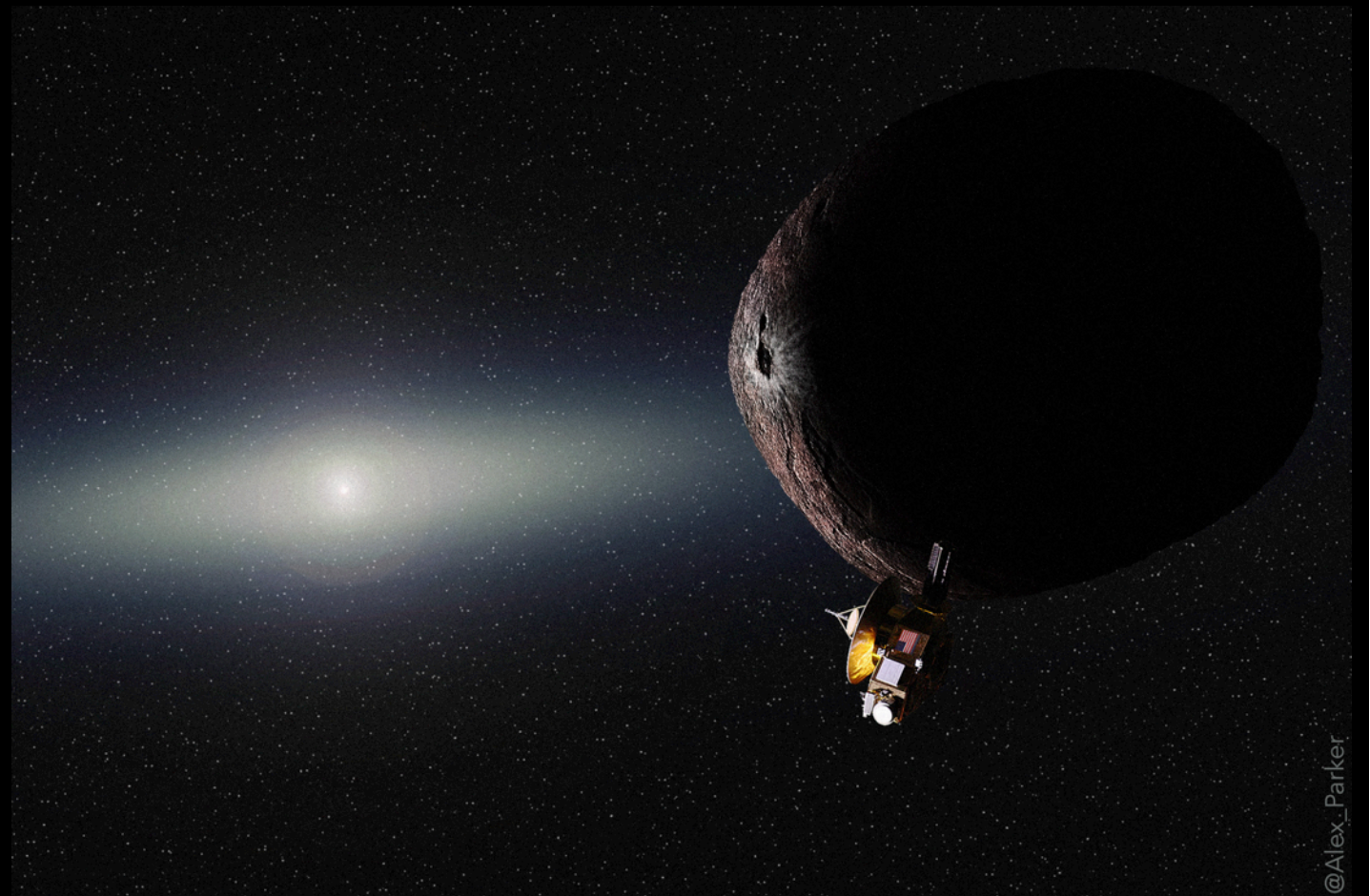
Full moon,
at same scale



January 1st 2019



- Fly past one last world (if approved by NASA)
- Then onwards into interstellar space



@Alex_Parker